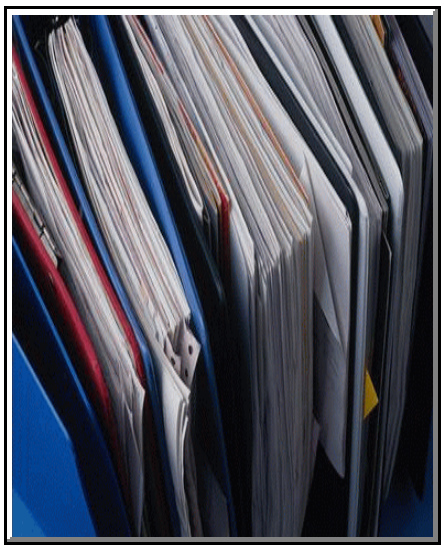
Curriculum Development and Assessment

Model for Technology Education Curriculum Assessment
(Adapted from "Model for Curriculum Assessment And Standard Implementation" Ethan B. Lipton & Michael A. De Miranda)



Definitions:
Curriculum – The subject matter that teachers and students cover in their studies, methods, structure, organization balance and presentation of content.
Curriculum Development – The process of planned development of curriculum, pedagogy, instruction and presentation models.
Curriculum Assessment – The process of analyzing the content outcomes of instruction.

Why have a Model for Curriculum Assessment?
Having a model for curriculum development helps document the relationship between technology education and academic content. By using the model your instructors will be able to show that they are teaching powerful material that is in line with state standards. Moreover, they will be able to make the statement "we teach this technology content which is already academic.."

The Plan:
The plan for Technology Education Standards and Curriculum in the State of Idaho includes three components:

1. Idaho State Academic Achievement Standards
2. Idaho Technology Education Content Standards
3. Local Curriculum Development

The relationship between the first two components is critical for the success of the third, locally developed Technology Education curriculum. The goal is for Districts to create a curriculum which simultaneously:

- reflects individual community local needs and values;
- meets or exceeds Idaho Technology Education Standards, and
- provides an avenue for students to meet various Idaho Academic Achievement Standards in mathematics, science and language arts.

To accomplish this three way relationship linkages connecting the components must be created. The first step, creation of the link between the Achievement Standard component and Technology Education Standard component is presently underway. Idaho is one of a handful of states who were chosen for a pilot study in which both sets of standards will be mapped using a taxonomy. Once the link is completed step two can proceed. In step two, the new curriculum assessment model will act as the link between the

Technology Education Standards and locally developed curriculum The last and final step consists of the delivery, evaluation and revision of the newly developed local curriculum.

The Curriculum Development Process Model:

Process One (Getting Started)

Step One – Start by choosing one course within one area to assess**.** For example, you may wish to assess Communication Systems I under the area Communications Technology or Power, Energy and Transportation Systems II under the PET area
Step Two **–** Create an outline of the course
Step Three – Match the outline of the course to the Idaho Technology Education Standards
Step Four – Compare outline to all standards (this should show where deficiencies or over emphasis in content exist)
Step Five – Proceed to Process Two

Process Two (An Action Plan for Revisions)

Step One – Record titles of selected standards for which changes need to be made in curriculum
Step Two – Record the action to be taken to make the desired change
Step Three – Schedule implementation of the change

Process Three (A Business Plan for the Program)

Step One– Identify equipment, supplies and services which are needed for implementation
Step Two – Determine the cost of the items needed
Step Three – Provide a justification for the proposed expenditure

The results of implementation of the Curriculum Assessment Model should include:

- clarification of the goals and objectives of your program
- creation of an improvement implementation strategy
- strengthening of the curriculum
- ability to show how technology education integrates with academic basics
- creation of a balance between what are required through the standards and content that is currently being delivered in Technology Education programs

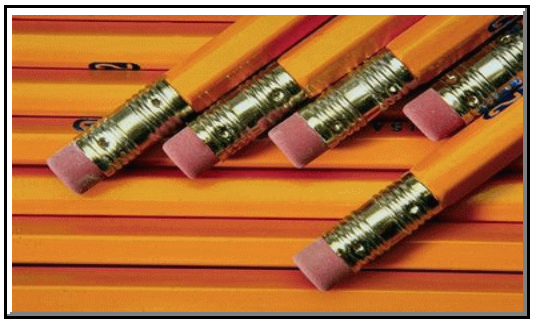
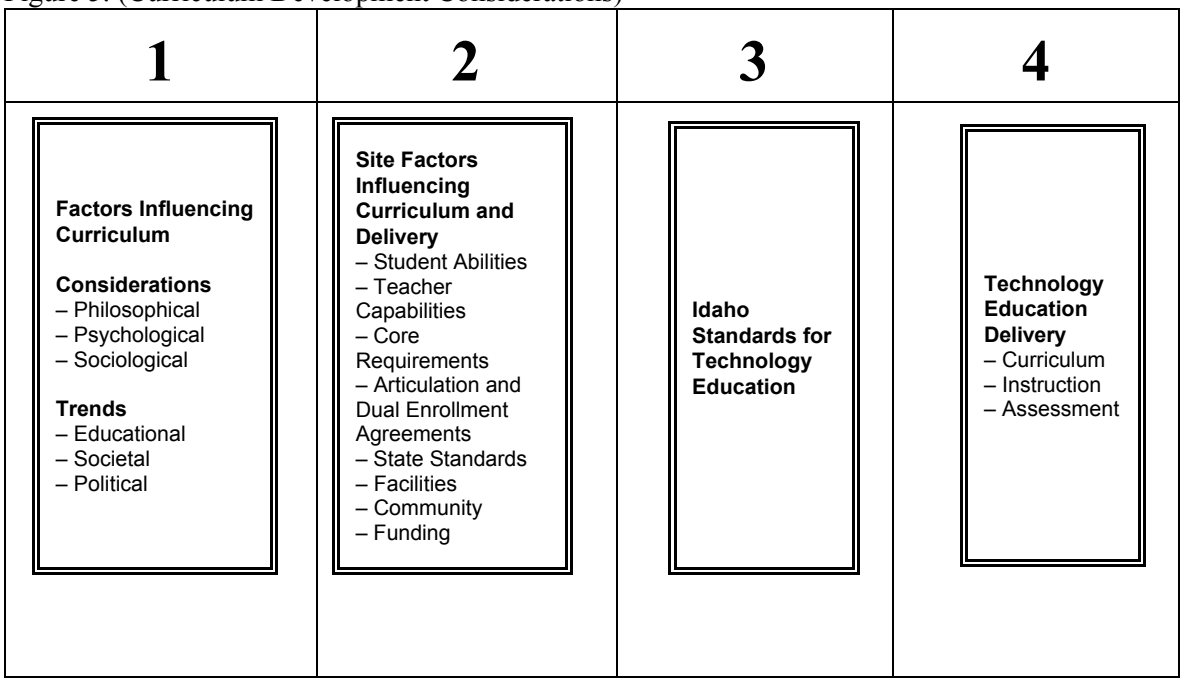


Figure 5. (Curriculum Development Considerations)



In most districts the responsibility of developing or assessing curriculum lies on a team of content experts appointed by either a curriculum coordinator or superintendent. There are many items for the teams consideration which affect the content and flavor of curriculum. For example, national trends, local priorities, state and district assessments and even local personnel affect decisions concerning the focus and delivery of content. In addition development and delivery of curriculum is also affected by student abilities, teacher capabilities, core requirements, and articulation with postsecondary institutions (see Figure 5). Understanding that development and assessment of curriculum is a local control issue, the Division strongly recommends that any curriculum content developed or purchased meet the standards adopted by the Technology 2001 committee. Compliance will ensure a minimum standard of program excellence across the state.